



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/571,317

03/09/2006

Eiji Honda

Q93199

8365

23373 7590 06/29/2009  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

BOYLE, ROBERT C

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

06/29/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,317	<b>Applicant(s)</b> HONDA ET AL.	
	<b>Examiner</b> ROBERT C. BOYLE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Any rejections stated in the previous Office Action and not repeated below are withdrawn.
3. No new grounds of rejection have been introduced, therefore this action is properly deemed FINAL.

***Claim Rejections - 35 USC § 102/103***

4. Claims 9, 12-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Curtin et al., U.S. Patent 6,150,426.
5. The rejection is adequately set forth in paragraphs 2-8 in the office action mailed on February 27, 2009 and is incorporated here by reference.

***Claim Rejections - 35 USC § 103***

6. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtin in view of Schreyer, U.S. Patent 3,085,083. The discussion with respect to Curtin as set forth in paragraphs 4-5 above is incorporated here by reference.
7. The rejection is adequately set forth in paragraphs 9-13 in the office action mailed on February 27, 2009 and is incorporated here by reference.

Art Unit: 1796

8. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtin in view of Hasegawa et al., WIPO Publication 02/096983. The discussion with respect to Curtin as set forth in paragraphs 4-7 above is incorporated here by reference.

9. The rejection is adequately set forth in paragraphs 14-16 in the office action mailed on February 27, 2009 and is incorporated here by reference.

### ***Response to Arguments***

10. Applicant's arguments filed May 27, 2009 have been fully considered but they are not persuasive.

11. Applicant argues that since Comparative Example 1 of the instant specification (§ 232-237) has a IR carboxyl group, [-COOH], peak to -CF<sub>2</sub>- peak ratio, represented by "<sup>x</sup>/<sub>y</sub>", that falls outside the claimed range, then the analogous polymers of Curtin must also have a <sup>x</sup>/<sub>y</sub> that falls outside the claimed range. This is not persuasive.

12. Applicant has shown that Comparative Example 1 differs from the claimed fluoropolymer. However, Applicant has not provided evidence on how the fluoropolymers of Curtin relate in comparison to either the claimed fluoropolymer or the Comparative Example 1 of the instant specification.

13. Examiner has provided a reasonable basis for the lack of carboxyl groups in the polymer: (1) no monomers containing carboxyl groups were polymerized column 3, lines 49-63; column 4, lines 22-50) and (2) Curtin teaches compositions of the fluoropolymer are free of components containing carbonyl bonds (column 6, lines 49-65; column 12, lines 43-50).

Art Unit: 1796

14. As to (1), Applicant has shown through Comparative Example 1 that a fluoropolymer left standing in air for 2 days with 700 ppm moisture content can have carboxyl groups that fall outside the claimed range. However, Applicant has not shown that the fluoropolymers of Curtin have been left standing in air for 2 days with the requisite moisture content or pointed to where Curtin teaches letting the fluoropolymers sit in air for 2 days.

15. As to (2), it is noted that carbonyl bonds ( $C=O$ ) are necessarily present in carboxyl groups ( $-C(O)OH$ ), and a composition including the fluoropolymer must include the fluoropolymer as a component. Therefore, if the components of the composition are substantially free of carbonyl groups, and the fluoropolymer is a component, then the fluoropolymer must be substantially free of carbonyl groups and thus substantially free of carboxyl groups.

16. Therefore, Applicant's argument is not persuasive.

17. Applicant argues that Curtin and Schreyer do not teach  $-CF_3$  end groups. This is not persuasive.

18. Curtin discloses "Preferred compositions in accordance with the invention are also free of C-H bonds" (column 6, lines 60-65). Schreyer teaches end groups of  $-CF_2H$  (column 5, line 60-column 6, line 65). It would have been obvious to one of ordinary skill in the art that given the end group  $-CF_2H$  of Schreyer, on a fluoropolymer that is free of C-H bonds as taught by Curtin would result in the claimed end groups of  $-CF_3$ . Further, Schreyer teaches additional fluorinated methyl end-groups add stability give improved

Art Unit: 1796

corrosion resistance (column 1, line 15-column 2, line 72; table IV). Therefore, Applicant's argument is not persuasive.

### ***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT C. BOYLE whose telephone number is (571)270-7347. The examiner can normally be reached on Monday-Friday, 9:00AM-5:00PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. C. B./  
Examiner, Art Unit 1796

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796